



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D2278
Job Sheet 198033



Part No: D2278

Job Qty: 70 pcs

Part Name: Step Leg



Part Weight: 0 lbs

Job Created: 7/19/19

Due Date: 8/9/19

Type: Stock

Status: New

Priority: Medium

Job Tracking No:

Created By: Linda Lacelle

Description:

Note: DWG REV F IPP Rev:A New Issue 05-11-07 JLM IPP Rev:B Now 6061-T6 06-06-23 JLM IPP Rev C New flat pattern 08.01.11 EC

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Lead Time	Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier			
121	Purchasing	70 pcs	8/9/19		0.00	0.00	Purchasing - 1			JUL 29 2019
							Purchasing - 2			
							Purchasing - 3			
122	Packaging 2-1 - Receive - B4B	70 pcs	8/9/19		0.00	0.00	Packaging 2 - 1 - B4B			JUL 29 2019
							Packaging 2 - 2 - B4B			
							Packaging 2 - 3 - B4B			
							Packaging 2 - 5 - B4B			
							Packaging 2 - 4 - B4B			
							Packaging 2 - 6 - B4B			
							Packaging 2 - 7 - B4B			
							Packaging 2 - 8 - B4B			
							Packaging 2 - 9 - B4B			
							Packaging 2 - 10 - B4B			
							Packaging 2 - 11 - B4B			
							Packaging 2 - 12 - B4B			
							Packaging 2 - 13 - B4B			
							Packaging 2 - 14 - B4B			
							Packaging 2 - 15 - B4B			
							Packaging 2 - 16 - B4B			
							Packaging 2 - 17 - B4B			
							Packaging 2 - 18 - B4B			
							Packaging 2 - 19 - B4B			
							Packaging 2 - 20 - B4B			
							Packaging 2 - 21 - B4B			
							Packaging 2 - 22 - B4B			
							Packaging 2 - 23 - B4B			
							Packaging 2 - 24 - B4B			
							Packaging 2 - 25 - B4B			
							Packaging 2 - 26 - B4B			
							Packaging 2 - 27 - B4B			

P.T.O.

COMP



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S200956



Part: D2278

Job No: 198033

Serial No/Batch: S200956

Revision:

Inspector:

Exp Date:

Instructions: Various STC's

Date: 07/29/19

				Packaging 2 - 28 - B4B	
				Packaging 2 - 29 - B4B	
				Packaging 2 - 30 - B4B	
				Packaging 2 - 31 - B4B	
				Packaging 2 - 32 - B4B	
				Packaging 2 - 33 - B4B	
				Packaging 2 - 34 - B4B	
				Packaging 2 - 35 - B4B	
				Packaging 2 - 36 - B4B	
123 QC 6	70 pcs	8/9/19	0.00 0.00	QC 6 - 9	
				QC 6 - 68	
				QC 6 - 61	
				QC 6 - 40	
				QC 6 - 81	
124 Waterjet - Flow - B4B	70 pcs	8/9/19	0.00 1.17	Waterjet - Flow - B4B	
130 Handfinish - 1-1 Chemical- B4B	70 pcs	8/9/19	0.00 1.84	Handfinish - 1 - 1 - B4B	
				Handfinish - 1 - 2 - B4B	
				Handfinish - 1 - 3 - B4B	
				Handfinish - 1 - 4 - B4B	
				Handfinish - 1 - 5 - B4B	
				Handfinish - 1 - 6 - B4B	
				Handfinish - 1 - 7 - B4B	
				Handfinish - 1 - 8 - B4B	
				Handfinish - 1 - 9 - B4B	
				Handfinish - 1 - 10 - B4B	
				Handfinish - 1 - 11 - B4B	
				Handfinish - 1 - 12 - B4B	
				Handfinish - 1 - 13 - B4B	
				Handfinish - 1 - 14 - B4B	
				Handfinish - 1 - 15 - B4B	
				Handfinish - 1 - 16 - B4B	
				Handfinish - 1 - 17 - B4B	
				Handfinish - 1 - 18 - B4B	
				Handfinish - 1 - 19 - B4B	
				Handfinish - 1 - 20 - B4B	
				Handfinish - 1 - 21 - B4B	
				Handfinish - 1 - 22 - B4B	
140 QC 7	70 pcs	8/9/19	0.00 0.00	QC 7 - 10	
				QC 7 - 13	
				QC 7 - 14	
				QC 7 - 15	
				QC 7 - 17	
				QC 7 - 18	
				QC 7 - 19	
				QC 7 - 2	
				QC 7 - 28	
				QC 7 - 3	
				QC 7 - 30	

				QC 7 - 34	
				QC 7 - 36	
				QC 7 - 37	
				QC 7 - 41	
				QC 7 - 47	
				QC 7 - 48	
				QC 7 - 51	
				QC 7 - 58	
				QC 7 - 59	
				QC 7 - 60	
				QC 7 - 9	
				QC 7 - 68	
				QC 7 - 50	
				QC 7 - 67	
				QC 7 - 40	
				QC 7 - 24	
				QC 7 - 43	
				QC 7 - 61	
				QC 7 - 81	
150 Packaging 3-1 - Stock - B4B	70 pcs	8/9/19	0.00 0.00	Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
160 QC 21 - SA	70 pcs	8/9/19	0.00 0.00	QC 21 - SA - 21	
				QC 21 - SA - 70	
				QC 21 - SA - 53	

Part Op 121 - ISSUE P/O: MANUFACTURE D2278 AS PER DWG *****IMPORTANT, VERIFY GRAIN

Descriptions: DIRECTION AS PER DWG***** C OF C IS REQUIRED
124 - *****CHECK GRAIN DIRECTION***** DEBURR ON DEBURRING MACHINE (no set-up time required)
130 - (Chemical Conversion Coat per QSI005 4.1)
140 - (QC7-Inspect Chemical Conversion Coat)
150 - (Identify as per dwg & Stock Location: _____) LOCATION : GA
160 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D2278P	Step Leg	70 (1 ea)	121-Purchasing	500954
M6061T6S.080	6061-T6 .080 Sheet	68.7050 sf (.9815 ea)	121-Purchasing	5190196 (5199775)

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
121-Purchasing	D2278P	70	0	0
	M6061T6S.080	69	284	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Leg	0.354Inches ± 0.010	0.364 0.344		
2	Leg	0.354Inches ± 0.010	0.364 0.344		
3	Leg	16.460Inches ± 0.030	16.490 16.430		
4	Leg	0.128Inches + 0.005 - 0.000	0.133 0.128		
5	Leg	0.354Inches ± 0.030	0.384 0.324	Radius	
6	Leg	2.000Inches ± 0.030	2.030 1.970		
7	Leg	4.740Inches ± 0.030	4.770 4.710		
8	Leg	8.460Inches ± 0.030	8.490 8.430		
9	Leg	0.213Inches ± 0.010	0.223 0.203		
10	Leg	0.750Inches ± 0.010	0.760 0.740		
11	Leg	0.080Inches ± 0.010	0.090 0.070	thick	

Plex 7/19/19 2:49 PM dart.lacelle.linda



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Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER POHB044092



Supplier: ACI002-VC
Acier Duval Steel
5888 Country Road 17
Plantagenet
ON
K0B 1L0 Canada
Phone: 613-673-5474
Fax: 613-673-4576

PO No: POHB044092

PO Date: 7/23/19

Due Date: 7/31/19

**Purchase Order
Revision:**

Revision Date:

Ship-To Contact: Guerin, Kimberley
Phone: 613-632-5200 Ext: 298
kguerin@dartaero.com

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Pymt Terms: Net 30

Freight Terms:

Special Comments:

E-MAILED
2019-07-23

Items

Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	198033	D2278P			Step Leg : Various STC's as per drawing D2278 RevF	Firmed		7/31/19	70 Ea	0 Ea	70 Ea	\$8.00/Ea	\$560.00
2	198034	D3065-5P			Step Leg : Various STC's as per Dwg D3065-5 RevB	Firmed		7/31/19	80 Ea	0 Ea	80 Ea	\$8.40/Ea	\$672.00
3	198035	D2279P			Step Spacer : Various STC's as per Dwg D2279 Rev D	Firmed		7/31/19	60 Ea	0 Ea	60 Ea	\$3.10/Ea	\$186.00
4	198036	D3065-1P			Step Spacer : Various STC's as Per Dwg D3065-1 Rev B	Firmed		7/31/19	80 Ea	0 Ea	80 Ea	\$3.05/Ea	\$244.00
Grand Total:													\$1,662.00



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PURCHASE ORDER
POHB044092



Order Notes

Procurement Quality Clauses

- A005 RIGHT OF ENTRY
- A008 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION SENT TO DART AEROSPACE)
- A012 CHEMICAL AND PHYSICAL TEST REPORTS
- A016 PERSONNEL QUALIFICATION
- A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)
- A026 CERTIFICATION OF MATERIAL CONFORMANCE
- A041 QUALITY MANAGEMENT SYSTEM
- A042 DART NOTIFICATION BY SUPPLIER
- A043 RETENTION OF QUALITY DOCUMENT

- A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM

- A049 SUPPLIER AWARENESS

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 7/23/19 2:12 PM Dart.Guerin.Kimberley



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PURCHASE ORDER POHB044092



Supplier: ACI002-VC
Acier Duval Steel
5888 Country Road 17
Plantagenet
ON
K0B 1L0 Canada
Phone: 613-673-5474
Fax: 613-673-4576

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB044092
PO Date: 7/23/19
Due Date: 7/31/19
**Purchase Order
Revision:**
Revision Date:
Ship-To Contact: Guerin, Kimberley
Phone: 613-632-5200 Ext: 298
kguerin@dartaero.com

Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	198033	D2278P			Step Leg : Various STC's as per drawing D2278 RevF	Firmed	-	7/31/19	59 Ea	0 Ea	59 Ea	\$8.00/Ea	\$472.00
2	198034	D3065-5P			Step Leg : Various STC's as per Dwg D3065-5 RevB	Received	-	7/31/19	80 Ea	80 Ea	0 Ea	\$8.40/Ea	\$0.00
3	198035	D2279P			Step Spacer : Various STC's as per Dwg D2279 Rev D	Received	-	7/31/19	60 Ea	60 Ea	0 Ea	\$3.10/Ea	\$0.00
4	198036	D3065-1P			Step Spacer : Various STC's as Per Dwg D3065-1 Rev B	Received	-	7/31/19	80 Ea	80 Ea	0 Ea	\$3.05/Ea	\$0.00
Grand Total:													\$472.00



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PURCHASE ORDER
POHB044092



Order Notes

Procurement Quality Clauses

A005 RIGHT OF ENTRY

A008 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION SENT TO DART AEROSPACE)

A012 CHEMICAL AND PHYSICAL TEST REPORTS

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A049 SUPPLIER AWARENESS

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 7/29/19 8:46 AM dart.belanger.natasha

A.D.S.

Acier Duval Steel

Fabrication shop: aluminum and stainless steel
plate cutting, bending, rolling and punching services.

Atelier de fabrication: aluminium et acier inoxydable
Service de coupage, pliage, roulage et poinçonnage.

1-888-831-5722

T 613-673-4574

info@adsindustries.com

5888 County Rd. 17

Plantagenet, ON.

K0B 1L0

Packing Slip:

7083

JUL 26, 2019

1 of 1

Sold to:	Ship to:
Dart Aerospace 1270 Aberdeen Street Hawkesbury, Ontario K0A 1K7	Dart Aerospace 1270 Aberdeen Street Hawkesbury, Ontario K0A 1K7
Order No: PCH5044002 ✓	Sold By:
Shipped By: pickup by Dart	Ship date: 26/07/2019 3p:20.
Tracking No:	

Item No	Quantity	Description
Waterjet cutting	28 ✓	Waterjet cutting only Drawing 2278 ✓
Waterjet cutting	60 ✓	Waterjet cutting only Drawing 2279 ✓
Waterjet cutting	80 ✓	Waterjet cutting only Drawing 3065-1 ✓
Waterjet cutting	80 ✓	Waterjet cutting only Drawing 3065-2 ✓
RECEIVED JUL 26 2019 DART AEROSPACE LTD. 		
Comment:		

Certificate of Conformance

Customer Name: DART Aerospace Supplier Reference, if applicable:

Name:

Invoice : 7984

Customer Purchase Order:

#: POH 8044092 ✓

Material Size	Material Type	Heat/lot#	Quantity	Mill/Manu. name:
	<u>Drawing</u>	<u>2278</u>	<u>59</u>	

We certify that the above materials) were purchased by [Acier Duval Steel division JD Welding Inc.] and conform to the requirements of your purchase order. Any attachments provided are unedited copies of the original Manufacturer's test reports/documents.

Signature: Felip Duval ✓

Name: Felip Duval

Date: 26 Juillet 2019

Manufacturing Procedure

Client Dart AeroSpace
Part Number 02278

Parts Manufacturing Procedure	Time / # / Date	Comments	Note by : initial
Matériel output			
Sheet number	M206165 0.080 S190496	43 K96	F.D
Date and time of materiel output	25 July 2019 7:15		F.D
Fabrication			
Sheet thickness	0.080		F.D
Grain direction	/		F.D
Start time	16:00 15:45		F.D
End time	16:51		F.D
Numbers of piece	10		F.D
Tool offset	0.010 0.009 0.010		F.D
Problem or comment	Had to change DXF problem with holes		F.D

* The quality check sheet must be completed and placed with this sheet

Signature of the responsible person hul . hui
Date of signature 26 July et 2019

Manufacturing Procedure			
Client	Cart Aerospace		
Part Number	D2278		
Parts Manufacturing Procedure	Time / # / Date	Comments	Note by : initial
Matériel output			
Sheet number	M6061T65 0.080 5190196	48x96	F.D
Date and time of materiel output	26 July 2014 7:20		F.D
Fabrication			
Sheet thickness	0.080		F.D
Grain direction	/		F.D
Start time	7:45		F.D
End time	9:30		F.D
Numbers of piece	36		F.D
Tool offset	0.009		F.D
Problem or comment			
* The quality check sheet must be completed and placed with this sheet			
Signature of the responsible person	huf hul		
Date of signature	26 Juillet		

Manufacturing Procedure

Client

Dev Aero Space

Part Number

02273

Parts Manufacturing Procedure	Time / # / Date	Comments	Note by : initial
Matériel output			
Sheet number	176661765 0080 5190196	48 X 48	F.P
Date and time of materiel output	26 July 2019 7:20		F.P
Fabrication			F.P
Sheet thickness	0.060		F.P
Grain direction	/		F.P
Start time	9:40		F.P
End time	11:00		F.P
Numbers of piece	20 13		F.P
Tool offset	0.009		F.P
Problem or comment			F.P

* The quality check sheet must be completed and placed with this sheet

Signature of the responsible person

Lup Rul

Date of signature

26 Juillet 2019

Entered: _____ Date: _____

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE



Route update only

NCR No.

DEPARTMENT/PROCESS

Job: <u>198083</u>	Skid-tube	Cross tube	Eng. (Non-AW)	Engineering
Part No. <u>02278</u>	Machining	Small Fab	Prod. Eng. Coord.	Water Jet
	Large Fab	Finishing	Rec/Store/Packaging	Supplier
				Quality

QTY Affected: 59 of 59

Sequence #: 123

Date: AUG 22 2019

Description Work Order Deviation

Disposition

-Holes are too big
- supposed to be 0.128 to 0.133
- Holes are 0.135 and up

-scrap.

MRB (QSI042)

123 19/0/26
40
9-89
AUG 22 2019

Completed By

Lead hand / Supervisor

DAS
30
9-89

QC / QA Coordinator

DAS
68

AUG 22 2019

Root Cause

Operator	☒
Manufacturing Process	☐
Equip/Tooling	☐
Handling/Preservation	☐
Material	☐
Product Improvement	☐
Process Improvement	☐
Human Factors	☐

FAULT CATEGORY

Pressure/Forced	☐	Contamination	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Bending	☐	Misaligned/off center	☐	Folio/Program	☐	Outside Tolerance	☒
Crushing	☐	BOM/Route	☐	Grain Direction	☐	Drawing	☐
Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Finish	☐
Crimp/Kink/Ripple/Wave/Twist	☐	Incomplete/Unclear Instructions	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Marks/Chatter	☐	Drill Holes	☐	Out of Sequence	☐	Misread	☐
Mislabeled	☐	Fit/Function	☒	Off-set/Set-up	☐		

Other/Details: